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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,904	03/31/2004	Yang Hoon Kim	LT-0053	4998
34610	7590	01/12/2006	EXAMINER	
FLESHNER & KIM, LLP				CHU, DAVID H
P.O. BOX 221200				ART UNIT
CHANTILLY, VA 20153				PAPER NUMBER
				2672

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,904	KIM ET AL.	
	Examiner	Art Unit	
	David H. Chu	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on March 31, 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-34 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 5, 8, 12, 13, 24 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The applicant use of terms "can" and "cannot" are confusing. The condition for determining whether the change "can" or "cannot" be made is not clear. Appropriate correction is necessary.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Anlauff. Anlauff discloses a convertible mobile computing device that support "tablet PC" and "notebook PC" system modes, and "landscape" and "portrait" display modes (col. 5, line 35-38). To retrieve any type of image for each display mode and displaying the

retrieved image for a device that converts between a tablet PC and a notebook PC is inherent.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8, 10-15 and 17-19, 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anlauff, and further in view of Badger.

8. Note with respect to claims 1-8 and 10-15, Anlauff discloses a convertible mobile computing device as described in the 102 rejection above. Further, Anlauff teaches control electronics that condition the display screen output for a "portrait" or "landscape" orientation as desired to accommodate the orientation of the mobile computing device (col. 8, line 44-48). Therefore, Anlauff clearly teaches the use of the different display modes and system modes on a "portable computer" as recited by the applicant.

9. However, Anlauff does not expressly teach the changing of different display modes "in response to user's request" or "in association with system mode". Further, Anlauff does not expressly teach, "setting the display mode" to the stored changed display mode or "default mode" accordingly when the "system power supply" of the portable computer is enabled.

10. Badger discloses a system and a method that utilize a driver 208 that perform modification to images for display to a rotatable display 100a (col. 3, line 66-67 & col. 4, line 1-2). Badger teaches that a desired orientation mode can be changed either by the user or automatically by use of a sensor that respond to the physical orientation of the device (col. 5, line 25-31). The physical orientations of the device are landscape and portrait positions, best shown in FIG. 1. The automatic changing of orientation mode by use of a sensor is the equivalent of the display mode "corresponding to the system mode" as recited by the applicant.

11. Further, Badger teaches the use of a driver 208 that performs the necessary modification to an image and sends the display information to the display memory 212, best shown in FIG. 2 (col. 3, line 60-67 & col. 4 line 1-2). The task of the driver carrying out the modification to an image and sending it to memory is the equivalent to storing a changed display mode to a storage device. At system startup, to set the display mode as stored or to a default is inherent.

12. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the orientation mode teachings for a rotatable display of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff for added customization to the display mode.

13.

14. Note with respect to claims 22-28, refer to 103 rejections discussed above with respect to claims 1-8 and 10-15. Further, Anlauff clearly teaches the use of at least two display mode orientations, as the disclosed convertible mobile computing device,

support both "landscape" and "portrait" modes as described above. The device disclosed by Anlauff comprises of a keyboard 212 (FIG. 5) or a touch sensitive screen that is used to carry out any intended function (col. 8, line 42-44).

15. However, Anlauff does not expressly teach the use of a "storage device" and a "controller" for storing the changed display mode and setting the display mode respectively. Further, Anlauff does not expressly teach the use of an input device for changing the display mode orientation.

16. Badger teaches the use of a driver 208 and display memory 212, as described above. The driver is the equivalent to a "controller" as it sends to the display memory the changed orientation mode for display. The display memory is the equivalent to the "storage device" as it stores the changed orientation mode. Further Badger teaches the user selecting the desired orientation mode as described above.

17. To store wallpaper images for each display mode orientation and to have the controller, described above, retrieve the stored wallpaper image for a set display mode for display is inherent for a device that converts between a tablet PC and a notebook PC.

18. Therefore, it would have been obvious to one of ordinary skill in the art to use the driver, display memory and input device of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff to enable customization of the display mode.

19. Note with respect to claims 17-19 and 21, refer to the 102 rejection discussed above with respect to claim 16.

20. Anlauff does not expressly teach resizing the image to have the "same and/or different aspect ratio," wherein the logo, background or a background picture maintain the "same original ratio of horizontal width to the vertical length."

21. Further, Anlauff does not expressly teach the "plurality of rotational modes" as claimed by the applicant.

22. Badger teaches the process of rotating an arrow, best shown in FIG. 3, wherein the rotated image represents the same arrow (col. 4, line 3-14). Clearly the arrow has the same ratio of horizontal width to the vertical length. Further, the teachings of Badger show that an image will have the same aspect ratio, while maintaining the same ratio of horizontal width to the vertical length, when the rotation of the image takes place and when the physical display is rotated in the opposite direction as shown in image 100c, best shown in FIG. 1 (col. 3, line 25-40). Whereas, the image will have different aspect ratio, while maintaining the same ratio of horizontal width to the vertical length, when the rotation of image takes place without the physical display being rotated as shown in image 100b, best shown in FIG. 1 (col. 3, line 25-40).

23. Further, Badger teaches the use of orientation modes that consist of rotations of 0 degrees, 90 degrees, 180 degrees and 270 degrees, which are "respectively rotated from a direction of a reference by a natural number of times a predetermined angle" (col. 4, line 66-67 & col. 5, line 1-6). The predetermined angle is "90 degrees" as claim 18 of the applicant.

24. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the rotational teachings of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff to display images on the screen according to user preference.

25. Note with respect to claim 29, refer to 103 rejections discussed above with respect to claims 22-28, Anlauff does not expressly teach the "plurality of rotational modes" as claimed by the applicant.

26. The teachings of Badger, as discussed above, clearly show that a display mode orientation include landscape, portrait, rotation 90 degrees and rotation 270 degrees.

27. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the rotational teachings of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff to display images on the screen according to user preference.

28. Claims 9, 20, 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anlauff in view of Badger, and further in view of Hinckley.

29. Note with respect to claim 9, refer to the 103 rejections above with respect to claims 1-8 and 10-15.

30. However, Anlauff and Badger do not expressly teach the use of a LCD display.

31. Hinckley discloses a device that may be used with a LCD display (pg. 8, [0136]).

32. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the device of Anlauff, orientation mode teachings of Badger and LCD display of Hinckley to further customize the display mode and for efficient use of power.

33. Note with respect to claim 20, refer to the 102 rejection discussed above with respect to claim 16. To store the display modes or any type of data "separately" is inherent as data are inherently stored in different addresses.

34. However, Anlauff and Badger do not expressly teach the use of a LCD display.

35. Hinckley discloses a device that may be used with a LCD display as described above.

36. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the device of Anlauff, orientation mode teachings of Badger and LCD display of Hinckley to further customize the display mode and for efficient use of power.

37. Note with respect to claims 30-34, refer to the 103 rejections discussed above with respect to claims 22-28.

38. The teachings of Badger show the driver and display memory, being the equivalent to a "controller" and a "storage device" as discussed above, respectively correspond to "control means" and "storing means" of the applicant.

39. Further, to provide a second "storing means" for images and "control means" for retrieving and displaying images is inherent from 103 rejections with respect to claim 20 and claim 22-28 discussed above.

40. However, Anlauff and Badger do not expressly teach the use of a LCD display.

41. Hinckley discloses a device that may be used with a LCD display as described above.

42. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the driver, display memory and input device of Badger, the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff, and the LCD display of Hinckley to enable customization of the display mode and for efficient use of power.

Conclusion

43. Doczy discloses a tablet PC that rotates between portrait and landscape orientations.

44. Hunt discloses a system and a method for automatically switching a computer system between multiple display profiles in response to a system event.

45. Williams discloses a method, apparatus and article of manufacture altering a displayed image presented to a user on a viewing device using a user-controlled orientation of the viewing device to determine how the displayed image is to be presented.

46. Robbins discloses a display method for selectively rotating windows on a computer display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Chu whose telephone number is (571) 272-8079. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DHC


1/9/08
RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600